

#### UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20556

May 9, 1989

MEMORANDUM FOR:

FROM

Those on Attached List Curdelig H. Maupin Cardelia H. Maupin Health Physicist State, Local and Indian Tribe Programs Office of Governmental and Public Affairs

SUBJECT:

CURRENT STATUS OF EACH STATE IN PROVIDING DISPOSAL OF LOW-LEVEL RADIOACTIVE WASTE - MAY 1, 1989

Enclosed for your information is the current status of each State in providing disposal of low-level radioactive waste as of May 1, 1989. SLITP would like to continue to update this status on a periodic basis. Any corrections, suggestions, and additional information would be appreciated. Please forward any comments to me in writing at 3-D-23, or by telephone on extension 20312.

Enclosure: As stated

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#### Current Status of States Providing Disposal of Low-Level Radioactive Waste

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Prepared by State, Local and Indian Tribe Programs, Office of Governmental and Public Affairs, NRC - Current as of May 1, 1989. For further information, contact Cardelia H. Maupin at (301) 492-0312 or Stephen Salomon at (301) 492-0368.

- 1. Chart entitled, "Interstate Low-Level Radioactive Waste Compacts Consented to by Congress as of May 1, 1989"
- 2. Compact status map as of May 1, 1989
- 3. DOE's Generic Plan for Development of a New LLW Disposal Facility.
- 4. Discussion of the following:

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- A. Meeting the Congressional Milestones
  - o Compacts and States Covered by Congressional Milestones
  - o Milestones and Penalties
  - Meeting the Congressional Milestones of January 1, 1988 and January 1, 1990

Compacts consented to by Congress

- o Central-Midwest Compact
- o Midwest Compact
- o Central Compact
- o Northeast Compact
- o Appalachian Compact
- o Southwestern Compact

Unaffiliated States

- B. Progress in the Sited Compacts
  - Southeast Compact
  - Rocky Mountain Compact
  - Northwest Compact

Note: Information added since the last status report, August 8, 1988, appears in all capital letters and/or has "\*\*\*" appearing before it. Information on Compacts and States is organized following the DOE Generic Plan for Development of a New LLW Disposal Facility, where possible.

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#### INTERSTATE LOW-LEVEL RADIOACTIVE WASTE COMPACTS CONSENTED TO

BY CONGRESS AS OF MAY 1, 1989

Northwest	Rocky Mountain	Central	Midwest	Central-Midwest	Southeast	Northeast	Appalachian
Alaska Hawaii Idaho Montana Oregon Utah Washington-HS	Colorado-HS-2 Nevada-HS-1 Nev Mexico Wyoming	Arkansas Kansas Louisiana Nebraska-HS Oklahoma	Indiana Iowa Michigan-HS Minnesota Missouri Ohio Wisconsin	Illinois-HS Kentucky	Alabama Florida Georgia Mississippi N. Carolina-H S. Carolina-H Tennessee Virginia		Delaware Maryland Pennsylvania-l West Virginia
					Unaffiliated District of ( Maine (2) Massachusetts New Hampshire	Columbia s (2)	

Southwestern (1) Arizona California-HS N. Dakota S. Dakota

#### Notes:

HS: Host State (1=first; 2=second)

 South Dakota enacted legislation for this Compact on February 17, 1989 and North Dakota enacted legislation on March 14, 1989.

(2) ME, MA, NY and TX are each planning to dispose of their own LLW.

Source: State, Local and Indian Tribe Programs Office of Governmental and Public Affairs, NRC

New York (2)

Puerto Rico

Texas (2)

Vermont

Rhode Island

### MEETING THE CONGRESSIONAL MILESTONES

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### COMPACTS AND STATES COVERED BY CONGRESSIONAL MILESTONES

COMPACTS (Those non-sited Compact regions)

Central-Midwest Central Midwest Northeast Appalachian Southwestern

STATES (States that are not members of a Compact region)

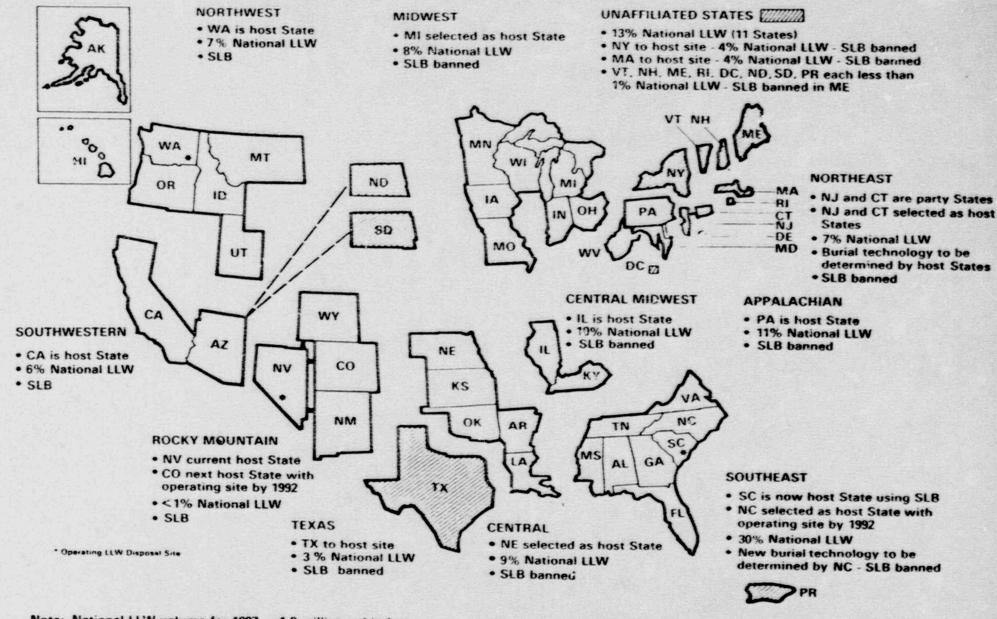
District of Columbia Maine Massachusetts New Hampshire New York Puerto Rico Rhode Island Texas Vermont

SITED COMPACT REGIONS (Not subject to siting milestones)

Southeast Rocky Mountain Northwest

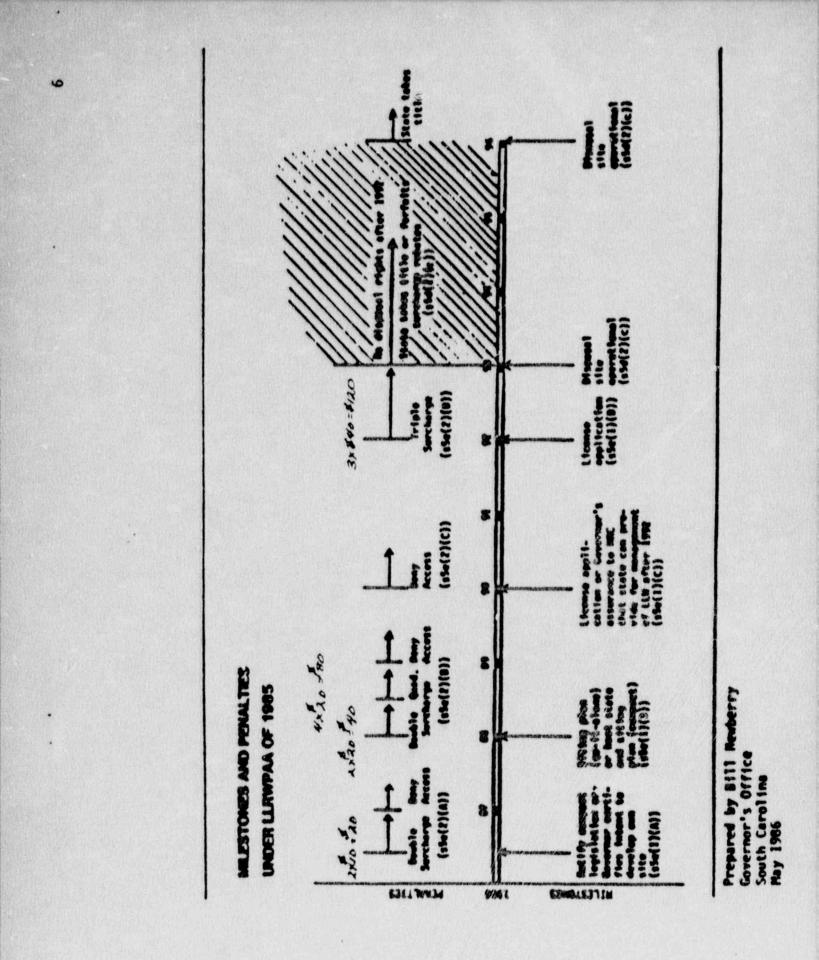
# LOW-LEVEL RADIOACTIVE WASTE COMPACT STATUS

**MAY 1989** 

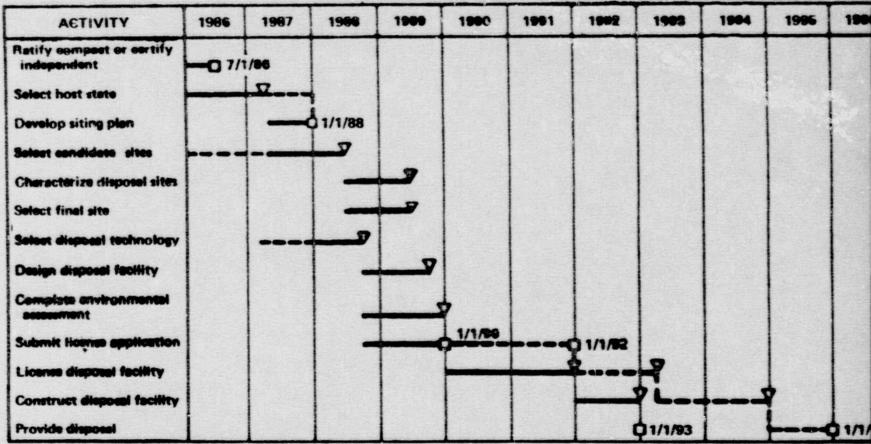


Note: National LLW volume for 1987 = 1.8 million cubic feet. SLB = shallow land burial

Source: State, Local and Indian Tribe Programs Office of Governmental and Public Affairs, NRC



### GENERIC PLAN FOR DEVELOPMENT OF A NEW LOW-LEVEL RADIOACTIVE WASTE DISPOSAL FACILITY



CALENDAR YEAR

Denotes Congressional Milestone

Source: U.S. Department of En

#### MEETING THE CONGRESSIONAL MILESTONES OF JANUARY 1, 1988 AND JANUARY 1, 1990

- 1. Requirements for Access to Regional Disposal Facilities
  - <sup>o</sup> Each non-sited Compact region shall identify the State in which its LLW disposal facility is to be located or shall have selected the developer for such facility and the site to be developed, and each Compact region or the State in which its LLW disposal facility is to be located shall develop a siting plan for such facility providing detailed procedures and a schedule for establishing a facility location and preparing a facility license application and shall delegate authority to implement such plan;
  - <sup>o</sup> Each non-member State shall develop a siting plan providing detailed procedures and a schedule for establishing a facility location and preparing a facility license application for a LLW disposal facility and shall delegate authority to implement such plan; and
  - The siting plan required...shall include a description of the optimum way to attain operation of the LLW disposal facility involved, within the time period specified.
- 2. Determination by the Sited States

South Carolina, Washington, and Nevada (the sited States) have determined that New Hampshire, Puerto Rico, and Vermont are not in compliance. All other Compacts and States are in compliance.

3. Requirements for Rebate of Twenty-Five per centum of all Surcharge Fees of \$10 per Cubic Foot

<sup>o</sup> January 1, 1988 milestone same as item 1.

° Recipients of payments.

- If the State in which such waste originated is not a member of a Compact region, to such State.
- If the State in which such waste originated is a member of the Compact region, to the Compact commission serving such State.

MAY 1, 1989

### MEETING THE CONGRESSIONAL MILESTONES OF JANUARY 1, 1990 (continued)

- 4. The next Congressional milestone is January 1, 1990, when States and Compacts must either submit a license application for a new disposal facility or provide certification to the NRC on plans for storage, disposal or management of their LLW, effective January 1, 1993. Three States are anticipated to submit disposal applications, namely, California, Illinois, and Texas. The Governors of 28 States are expected to submit certifications with plans to NRC. NRC, DOE, the Compacts and States are exploring the ramifications of these plans.
- 5. After 1992, the three sited Compacts will be able to limit disposal to LLW generated within their respective regions.

May 1, 1989

#### CENTRAL MIDWEST COMPACT As of MAY 1, 1989

	Activity	Description	Timing
1.	Compact	Consented by Congress January 15, 1986	Congressional milestone July 1, 1986 On schedule
2.	Host State Selection	Illinois designated as host State for 20 years because the Compact excludes any member State as being designated as a host State for a regional facility unless that State produces more than 10% of the total regional waste volume in any year. Kentucky generates only 1% of the total region's waste. The draft Regional Management Plan was released on November 10, 1987.	DOE target - March 1987 On schedule
		*** THE CENTRAL MIDWEST COMPACT ON SEPTEMBER 29, 1988 UNANIMOUSLY ADOPTED ITS REGIONAL MANAGEMENT PLAN. AN EARLIER VERSION OF THE REGIONAL MANAGEMENT PLAN HAD BEEN ADOPTED BY THE COMMISSION AT ITS ANNUAL MEETING ON JULY 21, 1988; HOWEVER, CONCERNS WERE RAISED REGARDING THE POSSIBLE USE OF REGIONAL TREATMENT AND STORAGE FACILITIES BY GENERATORS OUTSIDE OF THE COMPACT. CONSEQUENTLY, THE COMMISSION ISSUED ITS "STATEMENT ON IMPORTATION OF LOW-LEVEL RADIOACTIVE WASTE TO REGIONAL FACILITIES." THIS STATEMENT CLARIFIED THE COMPACT'S POLICY BY REQUIRING LOCAL GOVERNMENT APPROVAL BEFORE THE COMMISSION CONSIDERS A REQUEST FOR ACCESS TO A REGIONAL TREATMENT AND STORAGE FACILITY FROM A GENERATOR OUTSIDE THE COMPACT.	
3.	Siting Plan	The Illinois State Geological Survey and the Illinois State Water Survey have submitted a number of reports required by State law mapping of suitable geological regions; proposed siting criteria; and the method of characterizing a proposed site. On May 25, 1987, IDNS announced the selection of Battelle-Columbus and Hanson Engineers to assist in identifying four alternative sites The site identification plan was issued in langers 1989.	Congressional Milestone January 1, 1988 On schedule

The site identification plan was issued in January 1988.

## CENTRAL MIDWEST COMPACT (Cont'd.) As of MAY 1, 1989

	Activity	Description	Tining
4.	Select Candidate Sites	Selection of candidate sites occurred in 1988. Local involvement occurred early in the process, and grants up to \$100,000 per site were given The City Council of Martinsville, Clark County, (in southern Illinois near the Indiana border) voted unanimously a resolution to be considered as a host for the disposal facility. Out of the original candidate sites in 21 counties, other counties that were investigated are Marshall, De Witt, and Wayne County. Grants have been given so far to the City of Martinsville and Wayne County.	DOE target - June 1988
	***	THE WESTINGHOUSE ELECTRIC COMPANY CONFINUES TO WORK "I FACILITY DEVELOPMENT WITH LOCAL COMMUNITIES IN WAYNE" AND CLARK COUNTIES. ON NOVEMBER 8, 1988, MARTINSVILLE TOWNSHIP (LLINOIS) RESIDENTS VOTED ON A BALLOT INITIATIVE WHICH ASKED IF A LOW-LEVEL RADIOACTIVE WASTE DISPOSAL FACILITY SSOULD BE LOCATED IN THEIR COUNTY (CLARK), SIXTY- EIGHT PERCENT OF THE MARTINSVILLE VOTERS VOTED "YES" AND 32 PERCENT "NO." IN WAYNE COUNTY, LOCAL RESIDENTS VOTED 68% TO 32% AGAINST HOSTING SUCH A FACILITY; HOWEVER, THE WAYNE COUNTY BOARD OF COMMISSIONERS VOTED 8 TO 6 TO CONTINUE COUNTY SUPPORT FOR HOSTING THE LLW DISPOSAL FACILITY. THE INITIATIVES IN BOTH COUNTIES WERE OF AN ADVISORY NATURE.	
5.	Site • Characterization	By contractor (Battelle and Panson). IDNS estimates that the cost for characterizing each site will be \$1.5 million. Predevelopment costs are estimated to be \$15 million. In December 1987, a General Site Characterization Report (draft) was issued. Also, site specific reports will be issued by October 1989.	DOE target - June 1989 Behind schedule - 4 months

## CENTRAL MIDWEST COMPACT (Cont'd.) As of MAY 1, 1989

	Activity	Description	Timing
5.	(cont'd) ***	CONTRACTORS FOR THE ILLINOIS DEPARTMENT OF NUCLEAR SAFETY (IDNS) HAVE COMPLETED SITE CHARACTERIZATION WORK ON THE NORTH MARTINSVILLE SITE IN CLARK COUNTY. THE FINAL SITE CHARACTERIZATION REPORT IS DUE SPRING 19°3. SITE CHARACTERIZATION WORK CONTINUES AT THE SOUTH MARTINSVILLE SITE ALSO IN CLARK COUNTY AND AT THE ALTERNATIVE SITE NEAR GEFF IN WAYNE COUNTY. THE OTHER ALTERNATIVE SITE IN WAYNE COUNTY WAS DROSPED FROM CONSIDERATION ON OCTOBER 28, 1988.	
6.	Select Final Site	IDNS will make selection of the site in November 1989. According to law, the local community has veto power over the site.	DOE target - June 1989 Behind schedule 5 months
7.	Technology Selection	According to the Compact, conventional shallow land burial is banned. IDNS formed a task force to provide technical guidance to IDNS on the selection of an alternative method of disposal of LLW. IDNS sponsored an international symposium on alternatives in February 1986. Westinghouse Electric Corporation was chosen by IDNS in May 1988 to be prime contractor. Sargent and Lundy Engineers and the Earth Technology Corporation will assist. Westinghouse's reference conceptual design is essentially an above-ground vault using the Westinghouse SUREPAK concrete containers. The vault is partially below ground with earth covering it. The design is to accommo- date the volume of LLW generated for 50 years. The cost is \$43 million.	DOE target - January 1992 On schedule
8.	Facility Design	By developer/operator.	DOE target - September 1989

#### CENTRAL MIDWEST COMPACT (Cont'd.) As of MAY 1, 1989

Activi	ty	Description	Timing
. Enviro Assess	onmental ment	By developer/operator - by September 1989	DOE target - January 1, 1990 On schedule
). Licens Applic		By developer/operator - in December 1989	Congressional January 1, 1990
1. Licens	sing	By Illinois Department of Nuclear Safety. The State became an Agreement State effective June 1, 1987. Proposed rules were issued in November 1987 for the requirements for LLRW disposal away from point of generation. They became effective on March 1, 1988 and were later amended on October 31, 1988.	DOE target - January 1992
2. Constr	ruction	By developer/operator with operation to commence by 1993. Facility development and construction cost are estimated to be \$43 million.	Congressional milestone January 1, 1993 On schedule
3. Develo Operat		* THE ILLINOIS DEPARTMENT OF NUCLEAR SAFETY IS NEGOTIATING A CONTRACT WITH WESTINGHOUSE FOR DEVELOPMENT AND OPERATION OF THE COMPACT'S LOW-LEVEL RADIOACTIVE WASTE DISPOSAL FACILITY. WESTINGHOUSE HAD PREVIOUSLY BEEN WORKING ON A MONTH-TO-MONTH CONTRACT ARRANGEMENT.	

Public involvement: \*\*\* ON DECEMBER 13, 1988 IN CHICAGO, ILLINOIS, A MEETING WAS SPONSORED BY THE ILLINOIS DEPARTMENT OF NUCLEAR SAFETY FOR LOW-LEVEL WASTE GENERATORS. DURING THE MEETING THE PROGRESS MADE IN 1988 IN SITING A LLW DISPOSAL FACILITY IN ILLINOIS WAS REVIEWED AND PLANS FOR 1989 ACTIVITIES WERE DISCUSSED.

Funding: The fees that utilities pay have increased from \$498,000 per reactor for FY 1988 to \$1.15 per reactor for FY 1989 and FY 1990.

Next meeting: To be announced.

### MIDWEST COMPACT As of MAY 1, 1989

	Activity	Description	Timing
1.	Compact	Consented by Congress January 15, 1986.	Congressional milestone July 1, 1986
		*** THE MEMBER STATES OF THE MIDWEST COMPACT HAVE REACHED AN AGREEMENT ON AMENDMENTS TO THE MIDWEST COMPACT. THE MAJOR ISSUES OF THE REVISION INCLUDED SHARED COST, SHARED LIABILITY, COMMON APPLICATION OF SOVEREIGN IMMUNITY, PENALITIES FOR EITHER PARTY STATE OR MEMBER STATE WITHDRAWING FROM THE COMPACT, AND DISPUTE RESOLUTION. THE ACTUAL LANGUAGE OF THE AMENDMENTS HAS NOT BEEN DRAFTED SEVERAL CHANGES HAVE BEEN MADE IN THE COMPACT COMMISSION MEMBERSHIP. MS. BONNIE SIMS, MINNESOTA COMMISSIONER, HAS REPLACED TERI VIERIMA AS COMMISSION CHAIRMAN. STANLEY YORK IS THE NEW COMMISSIONER FROM WISCONSIN, G. TRACY MEHAN I.I, IS THE NEW COMMISSIONER FROM MISSOURI, AND EOB QUILLIN HAS RESIGNED AS THE COMMISSIONER FROM OHIO (NO REPLACEMENT NAMED AT THIS TIME.)	On Schedule
2.	Host State Selection	Michigan was selected as host State on June 30, 1987. In December 1987 Michigan enacted required host State legislation.	DOE target - March 1987 Behind schedule - 9 months
		*** MICHIGAN SINCE ITS SELECTION AS THE HOST STATE HAS BEEN PRESSING FORWARD, DESPITE OPPOSITION, TO MEET THE LLWPAA MILESTONES. HOWEVER, IN A LETTER DATED JANUARY 30, 1989, MICHIGAN GOVERNOR JAMES J. BLANCHARD ANNOUNCED TO HIS FELLOW GOVERNORS IN THE MIDWEST COMPACT THAT HE WOULD INTRODUCE STATE LEGISLATION ON JULY 1, 1989 TO WITHDRAW MICHIGAN FROM THE MIDWEST COMPACT UNLESS AN AGREEMENT COULD BE ESTABLISHED. THE GOVERNOR REQUESTED THEY AGREE TO JOIN HIM IN SEEKING CONGRESSIONAL ACTION TO REDUCE THE NUMBER OF LOW-LEVEL RADIOACTIVE WASTE DISPOSAL SITES CURRENTLY PLANNED, TO AMEND THE MIDWEST COMPACT LEGISLA- TION TO REQUIRE SHARED LIABILITY FOR THE OPERATION OF THE COMPACT'S DISPOSAL FACILITY, AND TO MAKE WITHDRAWAL OF	

### MIDWEST COMPACT (Cont'd) As of MAY 1, 1989

Activity	Description	Timing
2. (cont'd)	DESIGNATED HOST STATES FROM THE COMPACT MORE DIFFICU IN ADDDITION, GOVERNOR BLANCHARD DIRECTED THE MICHIG LOW-LEVEL WASTE AUTHORITY TO IMMEDIATELY HALT THE ST SITING ACTIVITIES. IN RESPONSE TO GOVERNOR BLANCHAR ACTION, OFFICALS IN THE SITED STATES OF WASHINGTON, AND SOUTH CAROLINA EXPRESSED THEIR INTENT TO DENY MI ACCESS TO THE CURRENTLY OPERATING SITES ON THE GROUN SUSPENSION OF SITING ACTIVITIES PLACES THE STATE AND COMPACT OUT OF COMPLIANCE WITH THE 1988 MILESTONE. LETTER DATED FEBRUARY 3, 1989, THE STATE OF WASHINGTO INFORMED GOVERNOR BLANCHARD THAT BASED ON HIS ACTION THE STATE OF MICHIGAN WAS DENIED ACCESS TO WASHINGTO DISPOSAL FACILITY AND DENIAL WAS EFFECTIVE IMMEDIATE IN ADDITION, THE SOUTH CAROLINA BOARD OF HEALTH AND ENVIRONMENTAL CONTROL VOTED TO DENY ACCESS TO THE BA SOUTH CAROLINA FACILITY TO MICHIGAN GENERATORS AS OF MARCH 1, 1989, UNLESS THE STATE RESUMES ITS SITING F FOR A LOW-LEVEL RADIOACTIVE WASTE FACILITY BY THAT E	AN ATE'S ATE'S AD'S NEVADA CHIGAN ADS THAT THE IN A FON NS, N'S ELY. ARNWELL, PROCESS DATE.
	MOREOVER, THE SOUTH CAROLINA BOARD DECIDED TO DENY A TO THE OTHER STATES IN THE MIDWEST COMPACT AND WOULD EFFFCTIVE AS OF APRIL 1, 1989, UNLESS THEY MEET ONE THREE ACCEPTABLE ALTERNATIVES. THE THREE ALTERNATIV WERE (1) MICHIGAN RESUMING OF THE SITING PROCESS, (2) IDENTIFYING A NEW HOST STATE OR (3) JOINING A CO WHICH IS CURRENTLY IN COMPLIANCE WITH THE 1988 MILES IN LIGHT OF THESE EVENTS, GOVERNOR BLANCHARD MADE AF MENTS WITH THE STATE OF WASHINGTON TO DELAY IMPLEMEN OF THE DENIAL OF ACCESS UNTIL THE GOVERNORS OF THE S HAD AN OPPORTUNITY TO MEET AT THE NATIONAL GOVERNORS ASSOCIATION MEETING HELD IN WASHINGTON, D.C. ON FEBRUARY 26-MARCH 1, 1989. AS A RESULT OF THE MEETI OF THE GOVERNORS OF THE MIDWEST COMPACT, A JOINT LET WAS SENT TO GOVERNOR BLANCHARD DATED FEBRUARY 26, 19	D BE OF VES DMPACT STONE. RRANGE- WTATION STATES S ING ITER

### MIDWEST COMPACT (Cont'd) As of MAY 1, 1989

	Activity	Description	Timing
2.	(cont'd)	IN THE LETTER, THE SIX OTHER MIDWEST COMPACT GOVERNORS AGREED TO SHARE LIABILITY FOR THE OPERATION OF THE LOW-LEVEL WASTE FACILITY AND TO REVIEW GOVERNOR BLANCHARD'S EFFORTS TO OBTAIN FEDERAL ACTION ON THE ISS. OF SITE PROLIFERATION. IN RESPONSE TO THIS LETTER, GOVERNOR BLANCHARD DIRECTED THE MICHIGAN LOW-LEVEL WASTE AUTHORITY TO IMMEDIATELY RESUME ITS SITING ACTIVITIES.	
3.	Siting Plan	On January 29, 3987, the Compact Commission voted unanimously to adopt a Regional Management Plan. The Plan covers three primary activities identifica- tion and characterization of current and expected future waste quantities; identification and assessment of tech- nologies and systems for LLW management; and development of criteria and procedures for determining which State would host the first regional facility. Recent decreases in projected waste volumes due to changing practices were incorporated into the plan. The Regional Management Plan includes broad guidelines developed for formulating site selection criteria. Michigan has developed a siting plan with the Low-Level Radioactive Waste Authority and Siting Criteria Advisory Committee to establish the final criteri Legislative authority is needed to implement this plan.	Congressional milestone January 1, 1988 On schedule
4.	Select Candidate Sites	By Michigan Low-Level Radioactive Waste Authority. Three sites by January 1990, the previous projected date was April 1, 1989.	DOE target - June 1988 Behind schedule 18 months
5.	Site Characterization	By Michigan Low-Level Radioactive Waste Authority by April 1, 1990.	DOE target - June 1989 Behind schedule 9 months

### MIDWEST COMPACT (Cont'd.) As of MAY 1, 1989

	Activity	Description	Timing
6.	Select Final Site	Michigan Low-Level Radioactive Waste Authority will make preliminary designation. Michigan State Legislature participates in final site selection with decision by July 1, 1990.	DOE target - June 1989 Behind schedule - 1 year
7.	Technology Selection	Commission resolved that shallow land burial as currently practiced is unacceptable but should be retained only as a base comparison technology. The Regional Management Plan recommends that disposal alternatives be the prerogative of the host State.	DOE target - September 1, 1988 Behind schedule - unknown
		Michigan has banned shallow land burial. Acceptable technologies are limited to above and below ground cannisters or above or below ground vaults. The Michigan Department of Health shall establish minimum criteria. A date for a decision on the technology selection is unspecified.	
8.	Facility Design	By Michigan determination. Operational lifetime will be 20 years. Rogers and Associates Engineering completed a conceptual design and economic analysis report on four disposal technologies in October 1987 for the Compact Commission. Also, another analysis was performed on the disposal capacity requirements for a LLRW facility.	DOE target - September 1989 Behind schedule - unknown
9.	Environmental Assessment	By Michigan Low-Level Radioactive Waste Authority.	DOE target - January 1, 1990 On schedule - unknown
10	Licensing Application	By Michigan Low-Level Radioactive Waste Authority. Governors' certifications to achieve milestone compliance.	Congressional milestone January 1, 1990 On schedule for Governors' Certification Behind schedule for

Licensing Application

#### MIDWEST COMPACT (Cont'd.) As of MAY 1, 1989

	Activity	Description	Timing
11.	Licensing	Michigan has inquired about full Agreement State status. NRC will license if Michigan is not an Agreement State by January 1, 1990. The Department of Health (if applicable) to license. Unknown date.	DOE target - January 1992 Behind schedule
12.	Construction	By Michigan Low-Level Radioactive Waste Authority scheduled for June 1, 1994.	Congressional milestone January 1, 1993
13.	Developer/ Operator	Undetermined at this time.	Behind schedule - 1 year 5 months

Public involvement: A bi-monthly newsletter is published by the Commission. Extensive mailing lists including special interest groups are maintained. All Commission meetings are open to public. The Commission held 14 public hearings on the draft Regional Management Plan during November 1986. The Compact Commission sponsored jointly with National Conference of State Legislatures a legislator's update, March 20, 1987. Wisconsin Public Utility Institute sponsored a seminar of LLW issues, March 26-27, 1987. Siting Criteria Advisory Committee to be formed for the Michigan Low-Level Radioactive Waste Authority.

AN EDUCATIONAL VIDEOTAPE ON LOW-LEVEL RADIOACTIVE WASTE AUTHORITY HAS FINALIZED ITS CONTRACT TO DEVELOP AN EDUCATIONAL VIDEOTAPE ON LOW-LEVEL RADIOACTIVE WASTE MANAGEMENT. IT SHOULD BE AVAILABLE FOR VIEWING IN THE AREAS SELECTED FOR FURTHER STUDY AS A POTENTIAL LOW-LEVEL WASTE SITE ON OR BEFORE THE DAY OF THE ANNOUNCEMENT OF THE NAME OF THE AREA. THE MICHIGAN LLW AUTHORITY ANNOUNCED THAT IT HAS ACCEPTED A PROPOSAL FROM THE UNIVERSITY OF MICHIGAN AND MICHIGAN STATE UNIVERSITY TO ESTABLISH THE MICHIGAN LOW-LEVEL RADIOACTIVE WASTE RESEARCH AND EDUCATION INSTITUTE. THE INSTITUTE WOULD CONDUCT LLW RESEARCH AND TRAINING IN LLW MANAGEMENT, AND BE A TECHNICAL INFORMATION AND PUBLIC EDUCATION CENTER.

Funding: Preoperational costs of the facility will be paid for by utilities by means of a \$12 million loan, at \$3 million per year. The Compact Commission transferred \$3 million to Michigan for disposal activities. There will be an \$8 million export fee utility assessment for FY 1989.

Next meeting: To be announced.

### CENTRAL COMPACT As of MAY 1, 1989

	Activity	Description	Timing
1.	Compact	Consented by Congress January 17, 1986	Congressional milestone July 1, 1986 On Schedule
2.	Host State Selection	<ul> <li>Because no State volunteered, a draft request for proposal (RFP) for a potential developer was issued September 1986. On June 29, 1987, the Compact Commission voted in fewor of US Ecology as the developer oils region disposal facility. U.S. Ecology's proposal included Bechtel as the prime contractor in the site selection, site developent and the licensing stages of the project. On December 15, 1987, the Compact Commission approved the recommendation of US Ecology that Nebraska be designated as the first host State for a regional facility. The recommendation was based on environmental, waste generation, and transportation factors selected by the Compact Commission.</li> <li>Nebraska Governor Orr arcepted responsibility as host State under 10 conditions which include community options, public health and safety, and economic compensation and reimbursement. These have been incorporated into Legislative Bill 1092 that was enacted April 12, 1988, and effective immediately.</li> <li>A LOW-LEVEL RADIOACTIVE WASTE REFERENDUM WAS PLACED ON THE NOVEMBER 1988 BALLOT IN NEBRASKA TO WITHDRAW FROM THE CENTRAL INTERSTATE LOW-LEVEL RADIOACTIVE WASTE COMPACT THE MASURE ALSO CALLED FOR A STATEWIDE AND LOCAL VOTE TO APPROVE ANY LOW-LEVEL WASTE DISPOSAL FACILITY IN THE STATE THE REFERENDUM FAILED BY APPROXIMATELY A 2-1 MAGIN (642 AGAINST TO 362 FOR). GOVERNOR KAY ORR APPROVED A SERIES OF REGULATIONS PROPOSED BY THE DEPARTMENT OF ENVIRONMENTAL CONTROL RELATED TO LOCAL INVOLVEMENT IN THE SITING PROCESS THE REGULATIONS CONTAIN PROVISIONS FOR COMMUNITY INCENTIVE AS WELL AS PROVISIONS FOR GROUND RULES AND FUNDING FOR LOCAL MONITORING COMMITTEES.</li> </ul>	

### CENTRAL COMPACT (Cont'd) As of MAY 1, 1989

	Activity	Description	Timing
3.	Siting Plan	The Siting Plan will be developed by US Ecology which finalized a contract with the Compact Commission on February 3, 1988. An outline of the siting plan was submitted by the Compact Commission in December 1987 to meet the Congressional milestone.	Congressional Milestone January 1, 1988 On schedule
4.	Select Candidate Sites	Phase I - siting study completed which eliminated broad areas of the five-State region from consideration using 10 CFR Part 61 siting criteria. Phase II - siting study completed to better define those areas thought to be suitable for a site. Seventeen candidate areas were reduced to ten. Nebraska is shown to have the greatest number of suitable land areas, followed by Kansas. At the April 24, 1987 meeting, the Compact Commission negated the conclusions of the Phase II siting study with regard to preferred siting; consequently, this opened the ertire region to potential siting. Phase III - a private developer-contractor (US Ecology) will complete site selection process, characterize the selected site or sites, and develop a facility. About 10-12 sites will be identified in Nebraska to be narrowed to 3 sites. There will be a formal incentive program for the host community, at a level of \$100,000 for community, for the three candidate communities followed by \$300,000 per year for the host community.	DOE target - June 1988 Phase I - July 1985 Phase II - February 15, 1987 Phase III - January 1, 1989 Behind schedule - 6 months
		* ON JANUARY 18, 1989, US ECOLOGY ANNOUNCED THE SELECTION OF THREE SITES IN THE SOUTHEASTERN, SOUTH CENTRAL AND *ATH CENTRAL PORTIONS OF NEBRASKA AS POTENTIAL LOCATIONS FOR THE CENTRAL STATES COMPACT'S LOW-LEVEL WASTE DISPOSAL FACILITY. THE THREE SITES ARE LOCATED IN NEMAHA, NUCKOLLS AND BOYD COUNTIES. THE SELECTION OF	

### CENTRAL COMPACT (Cont'd) As of MAY 1, 1989

	Activity	Description	Timing
4.	(cont'd)	THE THREE CANDIDATE SITES WERE BASED ON THEIR TECHNICAL MERITS DETERMINED BY PRELIMINARY STUDIES OF THE GEOLOGIC CHARACTERISTICS, TOPOGRAPHY, GROUNDWATER, SURFACE WATER, AND OTHER ENVIRONMENTAL FACTORS OF EACH SITE. EACH SITE IS 300 ACRES IN SIZE.	
5.	Site Characterization	By developer. According to Nebraska's community consent policy US Ecology cannot conduct detailed site characterization work unless invited to so do by the affected community.	DOE target - Jure 1989 On schedule
	***	SITE CHARACTERIZATION ACTIVITES OF THE SITES ARE SCHEDULED TO BEGIN MAY 1989 AND CONTINUE FOR EIGHTEEN MONTHS. THE ESTIMATED COST TO CHARACTERIZE EACH SITE IS 130 MILLION DOLLARS.	
6.	Select Final Site	By developer.	DOE target - June 1989
7.	Technology Selection	By developer following guidelines of management plan. The Compact Commission has expressed interest in greater protection than shallow land burial and criteria exceeding 10 CFR 61. The RFP requires that the facility's design include an "artificially constructed barrier" between the waste and the natural barrier. Cost is not supposed to exceed \$10 million. US Ecology's preliminary design is for above grade vaults with mixed LLW separated in its own vault. Nebraska law requires that Class C LLW be retrievable.	DOE target - September 1, 1988 On schedule
8.	Facility Design	By developer - January 1, 1992	DOE target - September 1989 Behind schedule - 3 months
9.	Environmental Assessment	By developer - April 1990	DOE target - January 1, 1990 Behind schedule - 3 months

#### CENTRAL COMPACT (Cont'd) As of MAY 1, 1989

	Activity	Description	Timing
10.	Licensing Application	By developer. Estimated date - April 1990. Prelicensing costs, estimated at \$10 million, will be financed by the region's utilities. Governor's certifications will be required.	Congressional milestone January 1, 1990 Behind schedule for license application - 3 months On schedule for Governor's certification
11.	Licensing	*** THE DEPARTMENT OF HEALTH AND THE DEPARTMENT OF ENVIRONMENTAL CONTROL ARE IN THE PROCESS OF DEVELOPING A MEMORANDUM OF UNDERSTANDING OUTLINING THE RESPONSIBILITIES OF EACH AGENCY IN LICENSING A LLKW FACILITY.	DOE target - January 1992 Schedule - unknown
32.	Construction	By developer - December 31, 1992. Total development cost of the facility, including licensing and construction, is now estimated at \$40 million. Per unit disposal cost is estimated in the range of \$150-200 per cubic foot for projected disposal volumes of 85,000 to 185,000 cubic feet per year.	Congressional milestone January 1, 1993 On schedule
13.	Developer/ Operator	US Ecology is the developer.	

Public involvement: The League of Women Voters of Nebraska has agreed to coordinate and assist in the development of public information materials and involvement strategies for siting the Nebraska LLW disposal facility.

\*\*\* THE NEBRASKA LEAGUE OF WOMEN VOTERS AND THE UNIVERSITY OF NEBRASKA EXTENSION SERVICE COSPONSORED A ONE DAY CONFERENCE ON LLW ON SEPTEMBER 22, 1988. THIS CONFERENCE AIRED THROUGHOUT THE STATE ON PUBLIC TELEVISION AND SOLICITED QUESTIONS FROM THE PUBLIC. THE CONFERENCE WAS DESIGNED TO PROVIDE BACKGROUND INFORMATION TO NEBRASKA CITIZENS ON THE COMPOSITION, GENERATION, MENAGEMENT AND PROPER DISPOSAL OF LOW-LEVEL RADIOACTIVE WASTE.

Funding: Nebraska wants \$300,000 from the Compact Commission to fund siting activities. \$10.1 million of front end money will come from major generated

Next meeting: Not scheduled.

### APPALACHIAN COMPACT As of MAY 1, 1989

	Activity	Description	Timing
1.	Compact	The Appalachian States Low-Level Radioactive Waste Compact (H.R. 3925) granting Congressional consent was signed by President Reagan May 19, 1988.	Congressional milestone July 1, 1986 On schedule - by party States
	***	THE APPALACHIAN COMPACT COMMISSIONERS FOR ALL MEMBER STATES HAVE BEEN APPOINTED. ONE OF THE COMPACT'S FIRST MAJOR RESPONSIBILITIES WILL BE TO DEVELCP AND COORDINATE THE REGION'S PLAN TO MEET THE 1990 MILESTONE REQUIREMENTS.	
2.	Host State Selection	Pennsylvania is host State according to the Compact. Pennsylvania enacted enabling and siting legislation, February 9, 1988.	DOE target - March 1987 On schedule
3.	Siting Plan	By host State determination. The Pennsylvania Department of Environmental Resources (DER) issued proposed regulations for siting on July 16, 1988.	Congressional milestone January 1, 1988 On schedule
4.	Select Candidate Sites	By host State determination. Operator-licensee designate. The Request for Proposal (RFP) issued wp:il 1988 had liability and financial assurance provisions that precluded any potential firms from bidding. A revised RFP was issued July 16 which addressed some of these concerns. About 12 com- panies have submitted proposals. Award will be made by March 1989. Legislation calls for three candi- date sites scheduled by July 1990. There is an extensive host community protection and benefits package that includes grants for independent	DOE target - June 1988 Behind schedule - 2 years
5.	Site Characterization	evaluation. By host State determination. Operator-liceusee designate. Cost of characterization is estimated at \$1-1.5 million per site. Scheduled for December 1991.	DOE target - June 1989 Behind schedule - 2 years 5 months
6.	Select Final Site	By host State determination. Operator-license designate. Scheduled for December 1991.	DOE target - June 1989 Behind schedule - 2 years

5 months

## APPALACHIAN COMPACT (Cont'd.) As of MAY 1, 1989

	Activity	Description	Timing
7.	Technology Selection	The Compact and Pennsylvania legislation prohibits shallow land burial and require that the host State develop alternative technologies. The alternative technologies must incorporate monitoring and recoverability. The law requires use of an above- grade facility, unless a below-ground design can be demonstrated to be safer.	DOE target - September 1, 1988
8.	Facility Design	By host State determination. Draft final technology performance and design criteria prepared. Scheduled for December 1991.	DOE target - September 1989 Behind schedule - 2 years 3 months
9.	Environmental Assessment	By operator-licensee designate determined by host State. Scheduled for December 1991.	DOE target - January 1, 1990 Behind schedule - 1 year
10.	Licensing Application	By operator-licensee designate determined by host State. Scheduled for January 1992. Governors' certifications will be submitted.	Congressional milestone January 1, 1990 Behind schedule application for license - 2 years On schedule for certifications
11.	Licensing	By Pennsylvania DER. Pennsylvania intends to become a limited Agreement State by August 1989. Scheduled to license facility by July 1993.	DOE target - January 1992 Behind schedule - 1 year 6 months
	•	*** THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES IS IN THE PROCESS OF FINALIZING LICENSING REQUIREMENTS FOR A LLRW FACILITY AND PLAN TO PUBLISH FINAL REGULATIONS IN MID-MAY 1989.	
12.	Construction	Operator-licensee designate by host State determination. Construction of facility scheduled for August 1994.	Congressional milestone January 1, 1993 Behind schedule - 1 year 8 months

#### APPALACHIAN COMPACT (Cont'd.) As of MAY 1, 1989

	Activity	nescription	Ti. ag
13.	Developer/ Operator	*** THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES (DER) HAS RECEIVED PROPOSALS FROM U.S. ECOLOGY AND C.TEM-NUCLEAR TO DEVELOP AND OPERATE A DISPOSAL FACILITY. THE STATE EXPECTS TO SELECT A DEVELOPER/OPERATOR BY JUNE 1989.	

Public involvement: Public Advisory Committee called for in Pennsylvania legislation consisting of 23 members representing local government, environmental, health, engineering, business, academic, and public interest groups. It is already meeting to help the Department of Environmental Resources draft requirements for the disposal technology, and other policy issues. Host municipality grants, guarantees, and other benefits are included in legislation. Six public meetings were conducted during April 1988 by the Department of Environmental Resources.

\*\*\* THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES (DER) HAS COMPLETED A SERIES OF SIX PUBLIC MEETINGS ON THE PROPOSALS FROM US ECOLOGY APPALACHIAN AND CHEM-NUCLEAR TO DEVELOP AND OPERATE A DISPOSAL FACILITY.

Next meeting: Public Advisory Committee meeting - not scheduled. Compact Commission not yet appointed by Governors.

### NORTHEAST COMPACT As of MAY 1, 1989

	Activity	Description	Timing
1.	Compact	Consented by Congress January 15, 1986.	Congressional milestone July 1, 1986 On schedule
2.	Host State Selection	A State may volunteer to host a regional facility subject to approval by the Commission. Otherwise, the Commission shall designate the host State. Compact requires the Commission to develop a regional management plan which determines the number and type of regional disposal facilities, and other management facilities. The regional management plan considered four options as part of the host State selection process(1) not designating a host State; (2) contracting for out-of-region disposal; (3) designating a single host State; and (4) designating both Connecticut and New Jersey. The Compact Commission selected in December 1987 the dual designation option due to the lack of clear technical differences between the two States and equity considerations.	DOE target - March 1987 Behind schedule
		*** THE COMPACT COMMISSION DECIDED IN DECEMBER 1987 TC DESIGNATE BOTH N. 'JERSEY AND CONNECTICUT AS HOST STATES DUE TO THE LACK OF CLEAR FECHNICAL DIFFERENCES BETWEEN THE TWO STATES AND EQUITY CONSIDERATIONS. IN OCTOBER 1988, THE COMPACT COMMISSION INDICATED THAT THE GOVERNORS OF BOTH STATES ARE REVISWING THE COMPACT'S DUAL DESIGNATION PLAN AND HOPE TO ESTABLISH EACH STATE'S RESPONDI- BILITIES IN THE NEAR FUTURE. THE STATE OF CONNECTICUT HAS PREPARED A MANAGEMENT PLAN FOR A FULI-SERVICE DISPOSAL FACILITY	

### NORTHEAST COMPACT (Cont'd) As of MAY 1, 1989

	Activity	Description	Timing
3.	Siting Plan	The Compact's Regional Siting Plan consists of both Connecticut's and New Jersey's siting plans. Both States have enacted siting legislation (CT-July 1987; NJ - December 1987).	Congressional milestone January 1, 1988 On schedule
	***	THE NORTHEAST COMPACT IS UPDATING ITS REGIONAL MANAGEMENT PLAN WHICH WILL INCLUDE A SECTION ON MIXED WASTE. NEW JERSEY HAS APPOINTED A SITING COMMISSION AND ADVISORY COMMITTEE TO LOOK AT THE TECHNICAL ASPECTS OF THE SITING PROCESS. THE NEW JERSEY LLEW ADVISORY COMMITTEE IS CURRENTLY DRAFTING SITING CRITERIA AND HOPES TO HAVE A DRAFT FOR REVIEW BY THE NEW JERSEY FACILITY SITING BOARD IN EARLY APRIL. THE CONNECTICUT HAZARDOUS WASTE SITING COUNCIL DRAFTED PROPOSED SITING CRITERIA AND IS CURRENTLY REVIEWING AND ADDRESSING PUBLIC COMMENTS RECEIVED ON THE CRITIERA. CONNECTICUT HOPES TO FINALIZE ITS SITING METHODOLOGY BY JENE 1989.	
4.	Select Candidate Sites	The Connecticut Hazardous Waste Service will have key siting responsibility. The LLW Advisory Committee will develop siting criteria. The Siting Council will develop regulations. Four candidate sites are scheduled to be selected by the Service by March 1989. For New Jersey, the Siting Board will have primary responsibility assisted by a Radioactive Waste Advisory Committee. Three or four candidate sites are to be identified before January 1991.	DOE target - June 1988 Behind schedule - CT 9 months - NJ 18 months

## NORTHEAST COMPACT (Cont'd) As of MAY 1, 1989

	Activity	Description	Timing
3.	Siting Plar	The Compact's Regional Siting Plan consists of both Connecticut's and New Jersey's siting plans. Both States have enacted siting legislation (CT-July 1987; NJ - December 1987).	Congressional milestone January 1, 1988 On schedule
	***	THE NORTHEAST COMPACT IS UPDATING THE REGIONAL SITING PLAN WHICH WILL INCLUDE A SECTION ON MIXED WASTE. THE PROJECTED COMPLETION DATE IF THE PLAN IS MARCH 1989. NEW JERSEY HAS APPOINTED A SITING COMMISSION AND ADVISORY COMMITTEE TO LOOK AT THE TECHNICAL ASPECTS OF THE SITING PROCESS. THE NEW JERSEY LLRW ADVISORY COMMITTEE IS CURRENTLY DRAFTING SITING CRITEFIA AND HOPES TO HAVE A DRAFT FOR REVIEW BY THE NEW JERSEY FACILITY SITING BOARD IN EARLY APRIL. THE CONNECTICUT HAZARDOUS WASTE SITING C.JUNCIL HAS DRAFTED PRO.OSED SITING CRITERIA AND IS CURRENTLY REVIEWING AND ADDRESSING PUBLIC COMMENTS RECEIVED ON THE CRITIERA. CONNECTICUT HOPES TO FINALIZE ITS SITING METHODOLOGY BY JUNE 1939.	
4.	Select Candidate Sites	The Connecticut Hazardous Waste Service will have key siting responsibility. The LLW Advisory Committee will develop siting criteria. The Siting Council will develop regulations. Four candidate sites are scheduled to be selected by the Service by March 1989. For New Jersey, the Siting Board will have primary responsibility assisted by a Radioactive Waste Advisory Committee. Three or four candidate sites are to be identified before January 1991.	DOE target - June 1988 Behind schedule - CT 9 months - NJ 18 months

### NORTHEAST COMPACT (Cont'd.) As of MAY 1, 1989

_	Activity	Description	Timing
5.	Site Characterization	For Connecticut, the Service evaluates the four candidate sites. For New Jersey, the Board characterizes three or four sites by October 1991.	DOE target - June 1989 Behind schedule - CT - ? NJ - 1 year 3 months
6.	Select Final Site	For Connecticut, the Service selects the final site in March 1991; and for New Jersey, the Board selects the final site by October 1991.	>>E target - June 1989 Behind schedule - CT - 1 year 9 months NJ - 2 years 3 months
7.	Technology Selection	Under the Compact, no specific disposal technology is either identified as preferable or prohibited. The regional management plan required by the Compact will determine the type and number of regional facilities which are necessary. For Connecticut, the Service selects the technology. For New Jersey, shallow land barral is prohibited.	DOE target - September 1, 1988
8.	ĉecility Design	For Connecticut, the Service selects the operator who submits application to the Siting Council. The Siting Council adopts regulati is. Also the Department of Environmental Protection adopts regulations. The process is to be completed by Just 199?. For New Jersey, the Board selects an operator who designs the facility. The process is to be completed by December 1991.	DOE target - September 1989 Behind schedule - CT - 1 year 9 months NJ - 2 years 3 months
9.	Environmental Assessment	EIS has to be prepared for NRC. For Connecticut the Service does this by April 1991; and for New Jersey, the operator does this by December 1991.	DOE target - January 1, 1990 Behind schedule CT - 1 year NJ - 1 year 11 months

#### NORTHEAST COMPACT (Cont'd.) As of MAY 1, 1989

	Activity	Description	Timing
10.	Licensing Application	For Connecticut, the Service and operator do this by November 1991; and for New Jersey, the operator submits the application by December 31, 1991. Governors' certifications will be submitted.	Congressional milestone January 1, 1990 Behind schedule - license application CT - 1 year 11 months NJ - 2 years On schedule for certifications
11.	Licensing	By NRC since both States are non-Agreement States. For Connecticut - May 1993; and for New Jersey - August 1993. *** THE STATE OF CONNECTICUT HAS PROPOSED REGULATIONS FOR LOW-LEVEL RADIOACTIVE WASTE DISPOSAL IN CONNECTICUT AND EXPECTS THE FINAL REGULATIONS TO BE FROMULGATED BY SPRING 1989.	DOE target - January 1992 Behind schedule - CT - 1 year 5 months NJ - 1 year 8 months
12.	Construction	Connecticut - July 1994; and for New Jerse; - September 1994.	Congressional milestone January 1, 1993 Behind schedule - CT - 1 year 7 months NJ - 1 year 9 months
13.	Developer/ Operator	Undetermined.	

Public involvement: Public meetings are to be included in Compact activities. All Commission meetings are open to public. The Commission has developed an extensive mailing list that includes key Congressional members.

\*\*\* THE COMMISSION IS WORKING ON PUBLIC INFORMATION PROGRAMS.

New Jersey held educational sessions during the Summer of 1988.

Funding: Connecticut has assessed generators \$1 million for siting activities.

Next meeting: Not scheduled.

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### SOUTHWESTERN COMPACT As of MAY 1, 1989

	Activity	Description	Timing
1.	Compact or Legislation or Certification	California is proceeding with siting activities based on legislation enacted in 1983. Previous legislation enacted in 1982 established a State advisory committee, required area screening by late 1984, and required the State to establish siting criteria. On June 17, 1987, the Governor signed legislation authorizing the Southwestern Low-Level Radioactive Waste Disposal Compact. Arizona enacted similar legislation on August 2, 1988.	Congressional milestone July 1, 1986 Da schedule
		*** ON NOVEMB 23, 1988, PRESIDENT REAGAN SIGNED PUBLIC LAW 100-712 ESTABLISHING THE SOUTHWESTERN COMPACT. ON FEBRUARY 17, 1989, SOUTH DAKOTA GOVERNOR SIGNED SB 126 MAKING THE STATE A MEMBER OF THE SOUTHWESTERN COMPACT. THE GOVERNOR OF **********************************	
2.	Host State Selection	California is host State under the Southwestern Compact legislation which requires that the member State generating the most waste be the initial host State.	DOE target - March 1987 On Schedule
3.	Siting Plan	California's approach to site development is to designate a contractor to select a site and to design, apply for a license, construct, and operate the disposal facility. US Ecology, Inc. was selected in 1985 to develop the facility. [There is a provision in the legislation that the State would operate the facility in the event that no qualified developer could be found.] Regional screening was carried out by Harding Lawson Associates under contract to US Ecology.	Congressional milestone January 1, 1988 On schedule

## SOUTHWESTERN COMFACT (Cont'd.) As of MAY 1, 1989

Activity	Description	Timing
4. Select Candi Sites	date Eighteen potential basins in Inyo, Riverside, and San Bernardino Counties were identified. All of these sites are located in the southern desert of California. The legislation requires that at least three sites be considered. A preferred site is required to be designated in 1988. A citizens advisory committee under the auspices of the League of Women Voters has become part of the siting process and gives advice to US Ecology. On February 18, 1987, US Ecology announced three potential sites; two are in San Bernardino County (both in Ward Valley 25 miles west of Needles, and Silurian, 15 miles north of Baker), and one in Inyo County (Panamint Valley, 30 miles north of Trona). Site selection has been narrowed to the two sites in San Bernadino County. The Ward Valley site is preferred because saline groundwater is found at 700 feet with a flow of 10 gallons per minute. However, the site is inhabited by the desert tortoise, which is a candidate threatened species under California law. The California Department of Fish and Wildlife examined the impact on the tortoise of a disposal facility. The Department of Public Health will require a mitigation and compensation plan to protect the desert tortoise.	DOE target - June 1988 On schedule
	*** THE TASK FORCE STUDYING THE POTENTIAL IMPACTS OF THE LLRW FACILITY ON THE DESERT TORTOISE AND POTENTIAL MITIGATION MEASURES SHOULD COMPLETE ITS WORK BY SPRING 1989.	•
	There is also concern by the Colorado Indians regarding the water on their sacred grounds.	

## SOUTHWESTERN COMPACT (Cont'd.) As of MAY 1, 1989

	Activity	Description	Timing
5.	Site Characterization	By US Ecology. California has contracted with Weston and Bechtel to verify US Ecology data. Both Needles and Baker want the site because of economics and the compensation package.	DOE target - June 1989 Behind schedule - 6 months
	***	SITE CHARACTERIZATION IS UNDERWAY AT WARD VALLEY; THE PROJECTED COMPLETION DATE IS THE END OF 1989.	
6.	Select Final Site	By US Ecology. Ward Valley was selected on March 11, 1988, as the proposed location. The Silurian Valley site will be the backup. The Panamint Valley site has been dropped from further consideraiton.	DOE target - June 1989 On schedule
7.	Technology Selection	The technology proposed by US Ecology is shallow land burial. The firm is willing to employ enhanced technology if directed to do so by the Department of Health Services. Alternate designs including waste treatment are under review. RFP's will be issued with a period of performance of 15 months. The facility is to operate for 30 years according to the Compact.	DOE target - Sept. 1, 1988
8.	Facility Design	Bechtel National, Inc., under contract to US Ecology.	DOE target - Sept. 1989
9.	Environmental Assessment	Initially scheduled for October 1988; at this time the projected completion date is April 1989.	DOE target - Jan. 1, 1990 On schedule

SOUTHWESTERN COMPACT (Cont'd.) As of MAY 1, 1989

	Activity	Description	Timing
10.	Licensing Application	The licensing application was initially expected by October 1988; at this time the projected date for submission of the application is by the end of 1989.	Congressional milestone January 1, 1990 On schedule
		*** US ECOLOGY IS NOT EXPECTED TO INCLUDE A DISPOSAL UNIT FOR MIXED WASTE IN ITS LICENSE APPLICATION FOR A LLRW FACILITY. AS A RESULT, THE PARTY STATES OF THE SOUTHWESTERN COMPACT PLAN TO SUBMIT SEPARATE GOVERNOR'S CERTIFICATION DOCUMENTS ON HOW THEY PLAN TO MANAGE MIXED WASTE TO MEET THE REQUIREMENTS OF THE 1990 MILESTONE.	
11.	Licensing	By California Department of Health Services which will prepare an Environmental Impact Report. Because the prospective sites are on Federal land, the Bureau of Land Management must prepare an Environmental Impact Statement. This will be jointly done with the State. License expected by February 1990.	DOE target - Jan. 1992 Earlier than schedule - 1 year 11 months
12.	Construction	US Ecology has Bechtel National, Inc., as designer constructor. Construction to begin in 1990. This site is expected to receive waste in 1991. Total cost estimated to be \$10-15 million.	Congressional milestone January 1, 1993 Earlier than schedule - 1 - 2 years
13.	Developer/	US Ecology.	

Public involvement: Both the State and the contractor have held and will hold a number of public meetings. In addition, the contractor has mounted a multi-media educational program for the public, established a citizens advisory committee, and sponsored tours of the Beatty site. The California Radioactive Materials Management Forum has been active since 1983 in organizing meetings as a technical support group composed of education, research, medical and industrial interests that are concerned with the safe management of radioactive materials. The League of Women Voters have been helpful in involving the public.

Next meeting: Not scheduled.

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Operator

## NEW YORK As of MAY 1, 1989

	Activity	Description	Timing
1.	Compact or Certification or Legislation	Not in a Compact. Legislation enacted August 1, 1986, to establish the process for siting a LLW disposal facility for LLW generated in New York only. Although New York has no present plans to join a Compact, the legislation would not preclude it from forming or entering a Compact.	Congressional milestone July 1, 1986 On schedule
2.	Host State Selection	New York is host State unless access can be found outside the State.	DOE target - March 1987 On schedule
3.	Siting Plan	Sites cannot include the western New York nuclear service center. Final siting regulations for certi', cations of sites were promulgated by the Department of Environmental Conservation on December 31, 1987.	Congressional milestone January 1, 1988 On schedule
4.	Select Candidate Sites	A five member Siting Commission, appointed by the Governor, completed its candidate site selection by December 1, 1988. The Department of Environmental Conservation must certify the Commission's site selection within 180 days of December 1, 1988, or about June 1, 1989.	DOE target - June 1988 Behind schedule - approx. 9 months
		The Siting Commission has contracted on March 30, 1988, with Roy F. Weston, Inc., for assistance in locating potential sites. Ten general candidate areas were selected in 1988.	
	**	* BY OCTOBER 31, 1988, ABOUT 30% OF THE STATE WAS ELIMINATED FROM CONSIDERATION BY LARGE-SCALE EXCLUSIONARY SCREENING. THE DRAFT SITE AND METHODOLOGY SELECTION PLANS WERE APPROVED AND FINALIZED AT THE NOVEMBER 16, 1988 SITING COMMISSION MEETING. AUTHORIZATION WAS GRANTED AT THIS TIME TO BEGIN CANDIDATE AREA SELECTION. ON DECEMBER 20, 1988,	

# NEW YORK (Cont'd) As of MAY 1, 1989

	Activity	Description	Timing
4.	(cont'd)	THE SITING COMMISSION ISSUED ITS CANDIDATE AREA IDENTIFICATION REPORT WHICH IDENTIFIED TEN CANDIDATE AREAS TO BE CARRIED INTO THE NEXT STAGE OF THE SITE SELECTION PROCESS. THIS NEXT STAGE INCLUDES A DETAILED SCREENING OF THE CANDIDATE AREAS, LIMITED ON-SITE OBSERVATION, AND COMPARATIVE EVALUATIONS TO IDENTIFY APPROXIMATELY EIGHT POTENTIAL SITES. THE TEN AREAS ENCOMPASS 32 TOWNS IN 10 COUNTIES, WITH 18 TOWNS LOCATED IN CENTRAL NEW YORK. THE CANDIDATE AREAS RANGE IN SIZES FROM ABOUT 50 TO 150 SQUARE MILES. THE COMMISSION PLANS TO SELECT THE EIGHT CANDIDATE SITES APPROXIMATELY ONE-SQUARE MILE IN SIZE BY LATE SPRING 1989.	
5.	Site Characterization	The Siting Commission will select 4 candidate sites for detailed site characterization.	DOE target - June 1989
6.	Select Final Site	Department of Environmental Conservation makes final certification.	DOE target - June 1989
7.	Technology Selection	By law, disposal by shallow land burial is prohibited and alternatives that must be considered include above ground, engineered, monitored disposal and underground mined repository disposal. The Siting Commission shall complete its disposal method selection during the Summer of 1990. The Department of Environmental Conservation must certify the technology selection.	DOE target - September 1, 198 Behind schedule - 1 year 9 months
		The Siting Commission contracted on March 30, 1988 for assistance in evaluating disposal technology designs.	

NEW YORK (Cont'd) As of MAY 1, 1989

	Activity	Description	Timing
8.	Facility Design	By NYS ERDA by Summer 1990.	DOE target - Sept. 1989 Behind schedule - 9 months
9.	Environmental Assessment	By NYS ERDA by Summer 1990. *** THE SITING COMMISSION HAS DEVELOPED THE SCOPE OF A DRAFT GENERIC ENVIRONMENTAL IMPACT STATEMENT FOR REVIEW AND COMMENT. A SITE-SPECIFIC EIS WILL BE PREPARED ONCE A SITE IS SELECTED.	DOE target - Jan. 1, 1990 Behind schedule - 9 months
10.	Licensing Application	NYS ERDA shall submit all explications for State licenses, permits, etc. by Summer 1990. Governor will submit certification to NRC.	Congressional milestone January 1, 1990 Behind schedule - 6 months On schedule for certif; diom
11.	Licensing	By New York Departments of Conservation and Labor and other State agencies by February 1, 1991.	DOE target - Jan. 1992 On schedule
12.	Construction	By NYS ERDA completed and operating by January 1, 1993 according to legislation.	Congressional milestone January 1, 1993 On schedule
	Development	New York Chate France Barrack and Developer Anthonity	

13. Developer/ New York State Energy Research and Developer Authority. Operator

Public involvement: The legislation has provided to the Siting Commission for an advisory committee on permanent disposal facilities, siting, and disposal method selection. Also, there are provisions for an information program to inform and educate the public, and to aid local governments. The Department of Health is preparing a public outreach program for public involvement in the site selection process.

\*\*\* THE SITING COMMISSION CONDUCTED A SERIES OF SIX PUBLIC MEETINGS ON DRAFT PLANS FOR SELECTING A DISPOSAL SITE AND DISPOSAL METHOD IN MID-OCTOBER 1988. PUBLIC MEETINGS WERE HELD IN EACH COUNTY WITH A CANDIDATE AREA DURING THE WEEKS OF JANUARY 17 AND 23, 1989.

Note: Initial appropriations to NYS ERDA, Department of Environmental Conservation, Department of Health, and the Siting Commission total \$3.5 million. Utilities will be billed for upfront costs and will receive credit for amount paid.

Next meeting: May 11, 1989 - 1:00 p.m., Empire State Plaza, Albany, N.Y.

# TEXAS As of MAY 1, 1989

-	Activity	Description	Timing
1.	Compact or Certification or Legislation	Not in a Compact. Legislation enacted in June 1981 to establish the Texas Low-Level Radioactive Waste Disposal Authority with the responsibility of developing a LLW disposal facility for Texas waste only. The Act was amended in 1985 to authorize Texas to accept out-of-State waste.	Congressional milestone July 1, 1986 On schedule
		In August 1987, the Governor signed legislation which was passed during a special session of the legislature. The legislation prohibits shallow land burial, provides guidance on siting and clarifies land use issues.	
	The legislature has asked the Authority to study the feasibility of forming a Compact with one or more States. The major issues are the exclusion of out-of-State waste and no site at all. Preliminary discussions with Puerto Rico have be conducted. Discussions with other States are	the feasibility of forming a Compact with one or more States. The major issues are the exclusion of out-of-State waste and no site at all. Preliminary discussions with Puerto Rico have been	
	***	* ON SEPTEMBER 28, 1988 THE TEXAS HOUSE COMMITTEE ON ENVIRONMENTAL AFFAIRS HELD A HEARING TO DISCUSS COMPACTING OPTIONS. THE COMMITTEE LISTENED TO TESTIMONY FROM REPRESENTATIVES FROM THE STATES OF	
		VERMONT AND MAINE. IN JANUARY 1989, THE GOVERNORS OF MAINE AND VERMONT SUBMITTED PETITIONS TO ENTER INTO A COMPACT WITH TEXAS FOR THE DISPOSAL OF THEIR WASTE. THESE PROPOSALS WERE SUBMITTED IN RESPONSE TO THE STUDY OF COMPACTING OPTIONS CONDUCTED BY THE TEXAS HOUSE COMMITTEE ON ENVIRONMENTAL AFFAIRS SUBCOMMITTEE ON LOW-LEVEL RADIOACTIVE WASTE COMPACTS. EACH PRO- POSAL PROVIDES FUNDING OF APPROXIMATELY THREE MILLION DOLLARS TOWARDS THE COST OF FACILITY DEVELOPMENT. ONCE THE FACILITY IS OPERATIONAL, ADDITIONAL FUNDING WOULD BE PROVIDED THROUGH GENERATOR DISPOSAL FEES AND LUMP SUM PAYMENTS FROM THE STATES. BOTH PROPOSALS ARE UNDER REVIEW BY THE TEXAS GOVERNOR'S OFFICE.	

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Activity	Description	Timing
4. (Cont'd)	by the Authority. However, due to the court order, delay occurred. The Texas Supreme Court dismissed th injunction in January 1988. As a result of the Court action, the Authority may do more detailed site characterization work and name a final site.	
	Enacted legislation in 1987 requires the Authority to consider in its site selection process the volume and location of wastes that would be produced by the decommissioning of the nuclear power plants in Texas. The law also requires the State Land Officer and the State University system to convey to the Authority La that is suitable for a disposal site to the Authority Board of Director.	and
	Because of the proximity of the proposed site to the Mexican Lorder, the U. S Mexico Hazardous Materia and Waste Management Work Group has become involved in the siting process. The Work Group is the vehicle created to implement the 1983 U. S Mexico Environmental Agreement.	
	*** ON NOVEMBER 12, 1988, HUDSPETH COUNTY COMMISSIONERS DECIDED TO DROP OUT OF ITS INTER-LOCAL GOVERNMENT AGREEMENT WITH EL PASO COUNTY TO COOPERATE IN PURSUIN THE PENDING LAWSUIT EL PASO COUNTY HAD FILED CHALLENS THE TEXAS LOW-LEVEL RADIOACTIVE WASTE DISPOSAL AUTHORITY'S (TLLRWA) SELECTION OF A PREFERRED SITE IN HUDSPETH COUNTY. HEDSPETH COUNTY PLANS TO USE A \$50,000 GRANT FROM THE DEPARTMENT OF ENERGY'S LOW-LEV WASTE MANAGEMENT PROGRAM TO HIRE A CONSULTANT TO INDEPENDENTLY REVIEW THE DISPOSAL AUTHORITY'S SITE CHARACTERIZATION WORK IN THE COUNTY.	SING

	Activity	Description	Timing
5.	Site Characterization	By the Authority. Activities have focused primarily on the site 11 miles northeast of Fort Hancock in Hudspeth County. \$1.8 million will be spent on characterization.	DOE target - June 1989
	***	IN JANUARY 1989, THE AUTHORITY INDICATED THAT 50% OF THE CHARACTERIZATION FOR THE FORT HANCOCK SITE HAD BEEN COLLETED.	
	***	THE AUTHORITY'S SITE SUITABILITY STUDY IS UNDERWAY AND INDEPENJENT MONITORING OF DATA IS BEING COLLECTED BY THE TEXAS BUREAU OF RADIATION CONTROL. TEXAS IS ENCOUNTERING PROBLEMS IN STUDYING THE SITE SUITABI! JY STUDY; THESE PROBLEMS PERTAIN TO THE NATURAL INTRUSION OF ANIMALS AND INSECTS.	
6.	Select Final Site	By the Authority. No firm date set until characteri- zation is completed. Expected in the end of 1989.	DOE target - 3/ ± 1989 Behind schedule - 6 months
7.	Technology Selection	In 1983, the Authority completed an evaluation and conceptual design of a shallow land burial facility in Texas. In 1985, the Authority issued a RFP to develop conceptual designs of 3 alternatives pursuant to amendments to the Act pertaining to alternative burial methods. In May, 1986, the Board of Directors of the Authority directed the staff to pursue 3 alternatives to shallow land burialabove ground vaults; below ground vaults with some use of modular canisters; and above and below ground vaults with some use of modular canisters. The design basis document and draft conceptual design report for the 3 alternatives was completed by Rogers and Associates in September 1986, with the final report issued in February, 1987. One technology will be selected prior to final design.	DOE target - September 1, 198 On schedule

	Activity	Description	Timing
7.	(cont'd)	Prior studies indicated that shallow land burial is preferable on the basis of technical considerations only. However, that technology is not publicly acceptable.	
		In 1987 legislation was passed prohibiting shallow land burial and requiring containment in reinforced concrete or technologically superior material.	
		The Authority has selected below-ground vaults and modular concrete canisters for the disposal technology. Class A and Class B LLW will go into modular canisters; with Class C LLW along with unusual Class A and Class B LLW to be placed into the vaults. There will be a separate mixed waste unit.	
8.	Facility Design	By the Authority. Sargent and Lundy Engineers and Rogers and Associates Engineering Corportation - cre contracted to complete preliminary designs.	DOE target - September 1989
		*** THE PRELIMINARY DESIGN FOR THE FACILITY WAS COMPLETED OCTOBER 31, 1988, INCLUDING A MIXED JASTE DISPOSAL UNIT. IN JANUARY 1989, THE AUTHORITY INDICATED THAT THE FINAL DRAFT OF THE DISPOSAL TECHNOLOGY DESIGN WAS UNDERGOING AN IN-HOUSE REVIEW.	
9.	Environmental Assessment	By the Authority.	DOE target - January 1, 1990
10.	Licensing Application	By the Authority.	Congressional milestone January 1, 1990
11.	Licensing	By Texas Department of Health	DOE target - January 1992
		*** THE TEXAS DEPARTMENT OF HEALTH HAS PROPOSED REGULATIONS TO GOVERN THE DISPOSAL OF NORM WASTE BECAUSE OF THE LARGE VOLUMES OF NORM	

WASTE MATERIAL GENERATED IN TEXAS.

	Activity	Description	Timing
12.	Construction	By the Authority. Figuered time to open January 1, 1992. Recently enacted legislation prohibits the Authority from contracting with a private company for the operation of a disposal site.	Congressional milestone January 1, 1993 Earlier than schedule - 1 year
		The projected predevelopment and construction costs are estimated in the range of \$16-20 million. Lifetime costs are estimated between \$200-300 million, resulting in a disposal charge of \$80-100 per cubic foot.	
13.	Developer/ Operator	Texas Low-Level Waste Disposal Authority.	

Public involvement: The Authority has an active public information program. A number of educational brochures have been prepared with regard to understanding the issues. site selection, disposal methods, citizen participation, transportation and packaging, uses of radioactive materials, and frequent questions and their answers. The Authority has a Citizen's Advisory Panel and is sponsoring a Policymakers' Forum. The Forum evaluates, analyzes and develops local public policy related to the Authority's activities in west Texas. The Forum brings together influential citizens, elected officials, and recognized experts.

IN DECEMBER 1988, THE AUTHORITY ANNOUNCED THE OPENING OF ITS FIELD OFFICE AND PUBLIC READING ROOM IN FORT HANCOCK, TEXAS. THE OFFICE WILL PROVIDE A PLACE FOR HUESPETH COUNTY RESIDENTS TO HAVE QUICK AND CONVENIENT ACCESS TO THE AUTHORITY'S REPORTS.

Next meeting: Not scheduled.

# MASSACHUSETTS As of MAY 1, 1989

	Activity	Description	Timing
1.	Compact or Certification or Legislation	Not in a Compact. Legislation enacted December 8, 1987 to establish the process for siting a LLW disposal facility for LLW generated in Massachusetts only. Compact formation or entering not precluded.	Congressional milestone July 1, 1986 On schedule - Governor's certification.
2.	Host State Selection	Mas achusetts is host State. STEVE ROOP HAS BEEN APPOINTED CHAIR OF THE MASSACHUSETTS LOW-LEVEL RADIOACTIVE WASTE MANAGEMENT BOARD UNTIL JULY 1989 WHEN THE BOARD WILL ELECT OFFICERS.	DOE target - March 1987 On scheudle
3.	Siting Plan	Key State agencies are the Massachusetts Low-Level Radioactive Waste Management Board (7 Governor- appointed public members, 2 ex-officio members of the Governor's Cabinet; and 2 local representatives appointed later); Secretary of Environmental Affairs; Department of Environmental Quality Engineering; and Department of Public Health. The Management Board develops the management plan including facilities and interim storage arrangements. Public Health must develop source and volume minimization programs. Environmental Quality and Engineering develops siting criteria and gui lines for site selection. An RFP was issued for a contractor to develop siting criteria.	Congressional milestone January 1, 1988 On schedule
	• ***	PRELIMINARY WORK IS UNDERWAY TO DEVELOP AN RFP FOR A CONTRACTOR TO ASSIST THE MASSACHUSETTS LLW MANAGEMENT BOARD IN DEVELOPING ITS LLW MANAGEMENT PLAN.	
4.	Select Candidate Sites	Management Board identifies two to five sites based on siting criteria and guidelines developed by the Department of Environmental Quality and Engineering. Reviews involve the Secretary of Environmental Affairs, Community Supervisory Committees and the public. By June 30, 1989, the draft candidate sites report is to be adopted.	DOE target - June 1988 Behind schedule - 1 year

# MASSACHUSETTS (Cont'd) As of MAY 1, 1989

	Activity	Description	Timing
5.	Site Characterization	The State's computerized geologic information system is being used to locate potentially suitable areas.	DOE target - June 1989 Behind schedule - 18 months
		Management Board in cooperation with Community Supervisory Committees will perform the site charac- terizatice. The Secretary of Environmental Affairs will revies the characterization report. Draft site characterization report to be adopted by December 29, 1990.	
6.	Select Final Site	Management Board to select site(s) by January 31, 1991.	DOE target - June 1989 Behind schedule - 19 months
7.	Technology Selection	Department Public Health is prohibited to license shallow land burial. The Management Plan has a review and analysis of current and developing disposal technologies. The Management Board establishes a pool of applicants to operate the facility. The Community Supervisory Committee of the Site Community chooses the technology and the developer/operator of the facility by May 2, 1991.	DOE target - Sept. 1, 1988 Behind schedule - 2 years 8 months
8.	Facility Design	Operator/developer by June 30, 1991. The Management Board signs the development contract by June 30, 1991.	DOE target - Sept. 1989 Behind schedule - 1 year 4 months
9.	Environmental Assessment	Operator/developer by September 15, 1991.	DOE target - Jan. 1, 1990 Behind schedule - 1 year 8.5 months
10.	Licensing Application	Operator/developer by September 15, 1991. State must submit Governor's certification by January 1, 1990.	Congressional milestone January 1, 1990 Behind schedule for license application - 1 year 8.5 months On schedule for

certification

## MASSACHUSETTS (Cont'd) As of MAY 1, 1989

	Activity	Description	Timing
11.	Licensing	Department of Public Health by June 30, 1992. Massachusetts has enacted enabling legislation to become an Agreement State.	DOE target - Jan. 1392 Behind schedule - 6 months
		*** THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL QUALITY AND ENGINEERING HAS HIRED A CONSULTANT TO ASSIST IN THE DEVELOPMENT OF LOW-LEVEL RADIOACTIVE WASTE DISPOSAL REGULATIONS. THE RECENT ELIMINATION OF FUNDING FOR FIVE TECHNICAL STAFF POSITIONS FOR 1989 WILL DELAY EFFORTS BY MASSACHUSETTS TO BECOME AN AGREEMENT STATE.	
	• a truction	Operator/developer by Septe 73.	Congressional milestone January 1, 1993 Behind schedule - 9 months
5.5	erator	Facility operator selection criterin are ' ing drafted.	

Public involvement: The Massachusetts Low-Level R direct waste Boz an independent agency with 7 gubernatorially-appointed public members and 2 cio member of the Governor's Cabinet. Two members represented local interest are 1 appointed by relevant local officials. Community Supervisory Committees in each community with a can date site will be created.

Note: The Fiscal Year 1988 budget is about \$635,000 for the Management Board, the Department of Environmental Quality Engineering, and the Department of Public Health. For FY 1989, the budget is \$1 million.

\*\*\* THE MASSACHUSETTS LOW-LEVEL WASTE MANAGEMENT BOARD HAS DEVELOPED + APPFOVED A RESOURCE ALLOCATION PLAN FOR ITS 1989 BUDGET AND HAS DEVELOPED ITS 1990 BUDG . HE FOARD HAS ALSO INITIATED HIRING OF AN EXECUTIVE DIRECTOR, LEGAL COUNSEL, AND PUPL'S PARTIC PATION COORPINATOR.

# MAINE As of MAY 1, 1989

	Activity	Description	Timing
1.	Compact or Certification or Legislation	which presents the intent of Maine to site a disposal	Congressional milestone July 1, 1986 On schedule
	***	IN JANUARY 1989, THE GOVERNOR OF MAINE SUBMITTED A PROPOSAL FOR COMPACTING ARRANGEMENTS TO THE STATE OF TEXAS. SEE TEXAS FOR MORE INFORMATION.	
2.	Host State Selection	Maine is host State unless access can be found outside the State.	DOE target - March 1987 On schedule
3.	Siting Plan	Siting plan completed December 24, 1987. Unique features include local voter approval and a Statewide referendum following legislative approval all before site acquisition but after licensing by NRC. Siting criteria are now being developed.	Congressional milestone January 1, 1988 On schedule
	****	AS REQUIRED BY LAW, THE AUTHORITY ANNOUNCED THAT IT HAD COMPLETED ANNUAL DRAFT REVISIONS TO ITS SITING PLAN.	
4.	Select Candidate Sites	The Authority is scheduled to select candidate sites by May 1989. A contractual agreement must be concluded with the Maine Yankee Atomic Power Company to pay the full cost of site screening and characterization.	DOE target - June 1988 Behind schedule - 11 months
	***	A CONTRACTUAL AGREEMENT HAS BEEN SIGNED WITH MAINE YANKEE FOR THE ASSESSMENT OF FUNDS FOR THE FULL COST OF SITE SCREENING AND CHARACTERIZATION. THE MAINE LOW-LEVEL WASTE AUTHORITY IS IN THE PROCESS OF FINALIZING THE CONTRACT WITH ITS CANDIDATE CONTRACTOR TO DEVELOP A SITE SCREENING METHODOLOGY, PERFORM BROAD STATEWIDE SITE SCREENING, AND SELECT CANDIDATE SITES FOR FURTHER EVALUATION.	4

# MAINE (Cont'd) As of MAY 1, 1989

	Activity	Description	Timing
5.	Sice Characterization	Maine LLW Authority. Scheduled completion by July 1990.	DOE target - June 1989 Behind schedule - 1 year 1 month
6.	Select Final Site	Maine LLW Authority followed by local voter approval, Board of Environmental Protection, State Legislature, and Statewide referendum all by November 1992. Site acquisition by April 1993 without eminent domain by the Maine LLW Authority.	DOE target - June 1989 Behind schedule - 3 years 5 months
7.	Technology Selection	By law, disposal by shallow land burial is prohibited. The LLW Authority has scheduled completion of technology selection and final design by August 1990.	DOE *arget - Sept. 1, 1988 Behind schedule
8.	Facility Design	By the Maine LLW Authority. See above. Board signs the development contract by June 30, 1991.	DOE target - Sept. 1989 Behind schedule - 1 year
9.	Environmental Assessment	By Maine LLW Authority scheduled for July 1990.	DOE target - Jan. 1, 1990 Behind schedule - 7 months
10.	Licensing Application	By Maine LLW Authority. Scheduled for completion by December 1990. State must submit Governor's certifi- cation by January 1, 1990.	Congressional milestone January 1, 1990 Behind schedule for license application - l year On schedule for certification
11.	Licensing ***	By NRC. Scheduled for completion by October 1992. THE MAINE BOARD OF ENVIRONMENTAL PROTECTION HAS ADOPIED RULES FOR DISPOSAL OF LOW-LEVEL RADIOACTIVE WASTE.	DOE target - Jan. 1992 Behind schedule - 10 months
12.	Construction	By Maine LLW Authority. Scheduled for completion by July 1995.	Congressional milestone January 1, 1993 Behind schedule - 2 years 7 months

MAINE (Cont'd) As of MAY 1, 1989

Activity

Description

Timing

Public involvement: Public comment is solicited by the Maine . LW Authority on its plan and other decisions. The public is mainly involved through approval at the local level of the selected site, public hearings by the Board of Environmental Protection, and legislative approval and a Statewide referendum.

\*\*\* THE MAINE LOW-LEVEL WASTE AUTHORITY SPONSORED A THREE-PERSON DEBATE ON LOW-LEVEL RADIOACTIVE WASTE ON NOVEMBER 22, 1988. IN ADDITION, THE AUTHORITY IS DEVELOPING A SCHEDULE AND AGENDA FOR A SERIES OF COMMUNITY IMPACT MEETINGS TO BE HELD OVER THE NEXT FEW MONTHS AT VARIOUS LOCATIONS AROUND THE STATE. MOREOVER, A MAINE-ONLY TOLL FREE NUMBER PAS BEEN INSTALLED FOR PUBLIC ACCESS TO THE AUTHORITY. A PUBLIC HEARING WAS HELD IN LATE JANUARY ON THE REVISIONS TO THE SITING PLAN. A GENERAL INFORMATION BROCHURE DISCUSSING THE AUTHORITY'S PURPOSE HAS BEEN PUBLISHED. THE AUTHORITY HAS ALSO INITIATED A COMMUNITY IMPACT PROGRAM AND IS SEEKING INPUT FROM LOCAL GOVERNMENT INTERESTS AND COMMUNITY LEADERS. TO SOLICIT THIS INPUT, THE AUTHORITY PLANS TO SPONSOR 12-13 MEETINGS ACROSS THE STATE. FOLLOWING THESE MEETINGS, THE AUTHORITY WILL DEVELOP RECOMMENDATIONS ON COMMUNITY IMPACTS RESULTING FROM THE LOCATION OF A LOW-LEVEL WASTE DISPOSAL FACILITY AND WAYS TO MITIGATE OR COMPENSATE FOR THESE IMPACTS. THE AUTHORITY HAS HIRED A PUBLIC RELATIONS FIRM TO DEVELOP PUBLIC INFORMATION MATERIALS AND A PUBLIC PARTICIFATION STRATEGY.

Note: Maine Yankee Atomic Power Company is to pay the full cost of site screening and characterization. The State has expressed interest in possible long-term storage of waste at the Maine Yankee site because of natural conditions (primarily a high water table) in the rest of the State. However, many believe such long-term storage for disposal purposed cannot be realized because of the geotechnical siting criteria for a LW disposal facility, i.e., being away from groundwater.

\*\*\* RULES WERE PROMULGATED TO ASSESS GENERATOR FEES TO COVER THE OPERATING EXPENSES OF THE AUTHORITY AND FOR CONTRACTS. HOWEVER, THE DEPARTMENT OF THE NAVY HAS INFORMED THE AUTHORITY THAT IT WILL NOT PAY ITS GENERATOR ASSESSMENT FOR THE AUTHORITY'S ADMINISTRATIVE COSTS.

#### Vermont

Two bills were enacted in the Vermont legislature in 1986. The first sets up an advisory committee to study and develop plans for the management and disposal of LLW including evaluation of methods and criteria for the siting of storage and disposal facilities. The second will indicate that Vermont will have a disposal site if no other arrangements can be made. Vermont is considering becaming an Agreement State.

In 1987, Verment did not complete the management and site selection process. Therefore, the State did not meet the January 1, 1988, Congressional milestons. A bill which establishes a siting authority and siting process was introduced in early 1988. This bill, if enacted, would meet the Congressional milestone. On August 11, 1988, hearings were held on the subjects of implementing legislation and Agreements States prospects.

In April 1988, Vermont Yankee staff met with NRC staff to explore the possibility of locating a LLW disposal facility at the plant site. The nuclear power plant generates almost 100 percent of the LLW in Vermont. This option is one under consideration by the Advisory Committee.

where On December 13, 1968, the Vermont Advisory Committee on Low-Level Radioactive Waste met and reviewed a draft siting bill. In addition, the Committee developed three recommendations from the meeting. The recommendations included the forming of a Compact, enacting siting legislation to comply with the amendments act, and to seek Agreement State status if the siting process is initiated.

where In December 1988, the State of Washington informed Vermont that they were denied access to the Richland, Washington low-level waste facility. The effective date of the denial of access was January 1, 1989. Washington determined that Vermont was not in compliance with Section 5(e)(2) of the Low-Level Radioactive Waste Policy Amendments Act of 1985 which requires that a siting plan be developed by January 1, 1988.

\*\*\* In January 1989, the Governor of Vermont submitted a proposal to the State of Texas regarding Compacting with the State to receive its waste. (See Texas section for more information.)

\*\*\* On January 19, 1989 the South Carolina Department of Health and Environmental Control voted to deny Vermont access to the Barnwell low-level waste disposal facility.

\*\*\* The Rocky Mountain Compact is considering contracting with Vermont to receive its waste.

When bers of the Governor's Advisory Commission on Low-Level Radioactive Waste have developed legislation to address the low-level waste issue. The bill (1) authorizes pursuit of out-of-State disposal of the waste (2) establishes guidelines for siting a facility in the State (3) authorizes

the Agency of Natural Resources to set up a scheme for regulation of LLW (4) designates Vermont Tankee as being responsible for siting, building and managing the waste facility during operation and closure and (5) establishes a special fund for low-level waste disposal.

\*\*\* During the Vermont legislative session from January to May 1989, the legislature plans to reconsider siting legislation which was introduced during the previous session.

\*\*\* A bill has been submitted to the Vermont House and Senate Natural Resources Committee to establish a LLW Authority.

### New Hampshire

A bill to establish a Compact with Maine and Vermont, which banned shallow land burial, passed in 1986. Neither Vermont nor Maine passed this legislation. The Northeast Compact bill was introduced. The State also explored contracting with other Compacts or States for disposal of New Hampshire's waste.

In 1987, New Hampshire continued to explore the contracting approach and possible membership with other Compacts. New Hampshire did not submit a siting plan and, consequently, did not meet the January 1, 1988, Congressional milestone.

\*\*\* In December 1988, New Hampshire was denied access to the Richland, Washington LLW facility along with Vermont (see Vermont). In addition, the South Carolina Board of Health and Environmental Control voted to deny New Hampshire access to the Barnwell facility on January 19, 1989.

where The Rocky Mountain Compact is considering establishing contract arrangements with New Hampshire to dispose of its waste. A representative from New Hampshire attended the March 16, 1989 meeting of the Compact to discuss possible contract arrangements.

#### Rhode Island

In 1986 Chode Island legislature passed legislation for a Massachusetts/Khode Island Compact. The legislation is consistent with the revised Compact bill developed by Massachusetts in 1985 with one notable change. The bill includes a provision similar to that found in the Appalachian Compact on host State selection based on volume and activity of waste generated. Under this provision, Rhode Island would be exempt from serving as the initial host State.

In 1987, Rhode Island negotiated a contract with the Rocky Mountain Compact Board for disposal of the State's LLW through 1989 at a cost of \$20 per cubic foct. Consequently, the State is in compliance with the January 1, 1988, Congressional milestone. In addition, it is trying to reduce and alter the State's waste stream to that none of it will require disposal after 1993. The State still desires a Compact with Massachusetts.

## Puerto Rico

In 1986, informal discussions were held with representatives of the Southeast Compact regarding possible membership. No formal or official communications were received by the Southeast Commission.

In 1987, Puerto Rico held informal discussions with Texas to form a Compact. Because Puerto Rico did not submit a siting plan, it is not in compliance with the January 1, 1988, Congressional milestone.

\*\*\* Puerto Rico has submitted an application to the NRC for below regulatory concern exemption for most of Puerto Rico's waste streams. Puerto Rico is a small generator of low-level radioactive waste which is primarily from medical users.

\*\*\*\* Representatives from Puerto Rico attended the January 1989 Quarterly Meeting of the LLW Forum for the first time.

## District of Columbia

In 1987, the Northeast Compact excluded the District from membership because of failure to enact permanent legislation. The District negotiated to contract for LLW disposal with the Rocky Mountain Compact Board through 1989. Consequently, the District is in compliance with the January 1, 1988, Congressional milestone.

which A representative from the District of Columbia nade a presentation on behalf of the District at the March 16, 1989 meeting of the Rocky Mountain Compact. The presentation concerned an extension or renewal of the District's contract with the Compact which is scheduled to expire on December 31, 1989.

## Progress in Sited Compacts

\*\*\* In January 1989, the three sited States sent copies of their 1990 milestone compliance criteria to each nonsited State.

## Southeast Compact

\*\*\* All member States of the Compact have enacted legislation amending the Compact. The amendment to the Compact will be introduced into the current session of Congress that would limit host State responsibilities to 20 years or 32 million cubic feet of waste (whichever comes first), and would limit the ability of States to withdraw from the Compact after the North Carolina disposal facility is completed.

Farty States: Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia

Operating disposal facility: Barnwell, South Carolina

Closing date for operating disposal facility required by Compact: December 31, 1992

\*\*\* (As required by law, Governor Carcoll Campbell has officially notified the Southeast Commact Commission that the Compact's currently operating disposal facility is Barnwell will cloce on December 31, 1992.)

New disposal facility required by Compact: By 1991 (no day and month specified)

Status for selection of next host State:

The Commission voted to select North Carolina as the next host State on September 10, 1986.

# North Carolina Legislature Enacts Siting Legislation

On August 13, 1987, the North Carolina General Assembly enacted legislation (HB 35) which created a Low-Level Radioactive Waste Management Authority. In addition, the legislation according to the statute, amended the Southeast Compact statute.

The Authority was given broad powers to site, design, construct, operate, finance, maintain, close, and permanently care for a disposal facility. Deadlines are set forth in the law for all major steps in the siting process. The Authority must have begun operation no later than November 1, 1987, and must have a completed disposal facility by December 31, 1992. Four hundred thousand dollars were appropriated to fund the initial operation of the Authority.

The North Carolina law also created an Inter-Agency Committee and reestablishes a Joint Select Legislative Committee. Both are required to report to the 1988 session of the General Assembly. The Committees are charged to study numerous issues including compensation to the host community.

Also included is a provision that no license for access to the disposal facility shall be issued unless the Radiation Protection Commission certifies that the generator is reducing waste volume to the extent technologically and economically feasible.

Furthermore, the reacted warended North Carolina's Compact statute, enacted in 1983, in the following ways:

- to limit the required operation time of a regional facility to 32 million cubic feet or 20 years, whichever occurs first;
- to limit the right of party States to withdraw to 30 days after the second host facility begins operation (counting the Barnwell, South Carolina, facility as the first host facility); and
- to withdraw North Calolina from the Southeast Compact unless all legislatures in the Southeast enact similar legislation by December 31, 1988, and unless Congress consents b" December 31, 1992.

These amendments differ in two significant ways from those recommended by the Southeast Compact on March 26, 1987. First, the Commission had suggested that party States be given 5 years (rather than 30 days) after the second facility opens to exercise their right to with Iraw. Second, the Commission's recommended amendments said nothing about any State withdrawing automatically if other States and/or Congress failed to enact the amendments.

\*\*\* Legislation recently passed by the North Carolina General Assembly provided interim budgetary support for the Authority's activities and strengthened the State's preemption powers over local ordinances restricting the location of a LLW disposal facility.

# Timetable for Sicing LLW Disposal Facility

November 1, 1987	Authority begins operation.
April 1, 1988	Inter-Agency Committee reports to Ceneral Assembly.
May 1, 1988	Guidelines for site selection process developed.
August 1, 1988	Private operator selected and employed or Authority designated as operator.
December 1, 1988	Identify locations suitable for size.
December 31, 1988	Compact amended by each State's legislature in Southeast.
August 1, 1989	Select two to three potentially suitable sites.
	Operator submits conceptual design proposal for two to three sites.
March 1, 1990	Select technology.
August 1, 1990	Characterization of two or three sites completed.
Ncvember 15, 1990	Completion of any Site Designation Review Committee records or studies.
	Selection of preferred site and begin land acquisitions.
December 31, 1390	All license and perwit applications submitted by operator.
December 31, 1992	New facility completed.
	Congress consents to Compact amendment or North Carolina withdraws.

# May 1, 1989

#### North Carolins Licensing Regulations

North Carolina's Radiation Protection Commission drafted new regulations for licensing commercial disposal facilities for radioactive waste. The draft regulations are comparable to 10 CFR Part 61 with a few additions.

Several public hearings were held August 19-21, 1987, to collect comments on the draft regulations. These comments were reviewed by a subcommittee, which made recommendations to the full Commission. The Radiation Protection Commission adopted the new regulations on September 25, 1987.

### Siting Criteria

The North Carolina LLW Management Authority published draft siting criteria in February 1988. After nive public hearings, the criteria were approved on April 15, 1988.

## Site Screening

The request for proposal (RFP) for site screening was issued May 16, 1988. Law Engineering Testing Co. of Raleigh and Ebasco Services of Greensboro were selected as contractors. Locations are to be identified by Decembe. 1 1988.

When Contractors to the North Carolina Low-Level Radioactive Waste Management Authority have completed the first phase of a statewide screening study to identify potentially suitable areas for a low-level waste facility. The study which was presented on November 30, 1988, found much of the State potentially suitable except the coastal regions. The screening study identified approximately 38% (20,000 square miles) of the State as potentially suitable. Phase II of the site selection process has begun. This phase of the selection process involves the identification of candidate sites. By August 1, 1989, two or more sites are to be selected for further characterization.

### Contractor/Operator

The request for proposal (RFP) for a single contractor/operator was issued July 1. 1988. The contractor/operator will be responsible for selecting the site, designing the facility, constructing and operating the facility, and closing it. Five companies initially indicated interest.

North Carolina received responses from Chem-Nuclear and Westinghouse to its RFP for a contractor/operator. The North Carolina Low-Level Waste Authority and North Carolina State agencies are reviewing the Chem-Nuclear and Westinghouse proposals to build a facility in North Carolina. The NC General Assembly's Joint Select Committee on LLRW directed the Authority to negotiate draft contracts with both potential operators prior to making a final selection. A site operator is to be selected by June 1, 1989.

Whe Public Participation: The North Carolina LLRWM Authority plans to hold twenty-six public forums during the months of February, March and April 1989 in communities located in or near potentially suitable areas identified by the State's porcening process.

NOTES: \*\*\* The Compact's generator survey report is close to being completed. Based on an annual three percent growth rate in low-level waste volumes, the Compact estimates that fifteen million cubic feet will be generated in the region for disposal between 1992 and 2012. The authority estimates that one billion dollars will flow through the facility in disposal fees during North Carolina's 20-year term as a host State.

## Rocky Mountain Compact

Party States: Colorado, Nevada, New Mexico, and Wyoming.

Operating disposal facility: Beatty, Nevada

Closing date for operating disposal facility required by Compact: Not specified.

New disposal facility required by Compact: By May 1989. However, Beatty is expected to operate through 1992.

Status for selection of next host State:

- The Compact requires that any member State which generates at least 20 percent of the region's waste measured by radioactive content or volume to host the LLW disposal facility.
- At this time, Colorado qualifies to become host State. Forecasts show that no other party State will generate more than 20 percent of the region's waste.
- 3. The Colorado Geological Survey completed an initial siting study of the entire State in April 1986 which indicates that 6 regions appear suitable for further study. Co-location with radium from West Denver was considered.
- 4. In 1987, the Board voted to have Colorado develop the next LLW disposal facility for operation by 1993. Nevada did not press for the 1989 date required by the Compact.
- 5. The Board authorized export of 230,000 cubic yards of radium waste from Colorado during 1988 to a newly licensed NORM disposal site in Utah. The remaining 3 million cubic yards will be exported unless Colorado has a new LLW disposal site by then.
- 6. UMETCO, a subsidiary of Union Carbide, is planning to develop a disposal site for the Denver radium waste and has submitted a vault and tunnel design for a NARM LLW disposal facility near Uravan, Colorado, in the southwestern part of the State.

- Whet UMETCO had proposed a second phase to the disposal facility near Uravan to construct a low-level waste disposal facility for the Compact's Class A, B and C waste. The Compact board received an application from UMETCO to designate the proposed facility as the next regional disposal facility. The Compact's primary concern about the proposal is whether or not it will be economically feasible in light of the competing NARM disposal site in Utah. The State's review of the license application and the site's geology and hydrology has not 'evealed any problems with the proposed site.
- In October 1988, the State of Colorado withdrew indefinitely its application to the Compact board for designation of the proposed UMETCO site as the regional NARM disposal facility. In 1989, the State plans to reevaluate the waste management options it will have after the Beatty site closes on December 31, 1992. However, in February 1989, the State of Colorado reapplied to the Compact Board for designation of the UMETCO LLW disposal facility as a regional NARM low-level disposal facility. The disposal of Classes A, B, and C waste was not addressed.
- In November 1988, the Hearing Officer responsible for considering the issuance of a license to the UMETCO Corporation to develop a NARM waste disposal site in western Colorado ruled in favor of issuing the license. The Montrose County (County in which facility is to be located) Commissioners voted two-to-one to grant the necessary local approval for the proposed facility. However, UMETCO has not committed to developing the NARM disposal site or to move forward with the second phase of the project to develop the regional disposal facility for the Compact.

Colorado is seeking the designation of the Uravan site as the regional NARM facility by the Rocky Mountain Compact because all low-level waste disposed of within the Compact region must go to a Compact-approved facility. Colorado can not dispose of NARM waste at the site absent the Compact's approval. The Denver Superfund cleanup radium-bearing waste is the only waste the UMETCO'S Uravan site is licensed to receive at this time.

- Which On January 3, 1980, the Colorado Department of Health Hearing Officer recommended issuing a license to UMETCO Minerals Corporation for disposal of radium mill tailing waste at the East Bench site near Uravan in Montrose County. The Western Colorado Congress (WCC). an environmental group, was joined by the Utah Operators and Outfitters'Association, the Montrose Merchants' Committee, and the San Miguel County Right to Know Committee in filing an appeal to the Hearing Officer's decision with the Department and with the Denver District Court. This group also appealed in Montrose District Court the January 3, 1989 decision of the County Commissioners to issue UMETCO a solid waste permit.
- \*\*\* On January 27, 1989, UMETCO filed request for Superfund involvement with the site.

May 1, 1989

\*\*\* On September 30, 1988, the Northwes. Compact and the State of North Dakota signed a contract which provides for disposal of North Dakota-generated waste at Hanford through December 31, 1990.

\*\*\* The Phase 2 draft report on closure and long-term care costs of the Hanford facility were released in November 1988. The report includes a design for closure, technical specifications for the design, and an environmental monitoring program and cost estimates for different closure options. The total cost estimate for closure and long-term care for the facility is currently \$55 million.

the In December 1988, New Hampshire and Vermont were denied access to the Hanford disposal facility and South Dakota was asked for clarification of their waste management plans.

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May 1, 1989

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